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E X T R A C T

FROM THE ANNUAL REPORT OF THE

MEDICAL OFFICER

OF

THE LOCAL GOVERNMENT BOARD

For 1909-10.

REPORT ON THE
WORK OF INSPECTORS OF FOODS

For the Year 1909-10.

BEING

A REPORT BY

G. S. BUCHANAN, M.D., B.Sc.



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LOCAL GOVERNMENT BOARD,
WHITEHALL,
LONDON, S.W.



EXTRACT FROM THE REPORT OF THE
MEDICAL OFFICER.

TO THE RIGHT HONOURABLE JOHN BURNS, M.P.,
PRESIDENT OF THE LOCAL GOVERNMENT BOARD.

SIR,

I HAVE the honour to submit a record of the work carried out in the Board's Medical Department in 1909-10.

* * * * *

Work of Food Inspectors.

The work which has been carried out during the year in the food inspection branch of the medical department is reported upon by Dr. Buchanan on pages 196 to 232. The inspectors of foods have made local inquiries and reports regarding the examination and control of foods in port sanitary districts under the Board's regulations, and also as to the administration of the Sale of Food and Drugs Acts and their application to various articles of food. In addition, investigations have been made and advice given upon a large number of questions relating to the purity of food.

As the food supplies of this country are to so large an extent obtained from abroad it is evidently very desirable that supervision should be exercised over the wholesomeness of these products as they arrive in bulk at our ports. This has been secured by the action taken by the Board under the Public Health (Regulations as to Food) Act, 1907 ; and the experience which has now been gained

shows that the regulations made under that Act have already in many directions prevented unsound or unwholesome foods from passing into consumption, and that the exercise of these new powers by the sanitary authorities concerned has had a marked effect in improving generally the condition in which foods arrive at our ports.

In regard to meat, care has been taken to obtain as much information as possible regarding the procedure adopted in foreign countries for regulating the production of meat intended for export to the United Kingdom. Such information is of importance in order to assist the work of inspection at the ports, particularly at the present time when large changes are taking place in the relative meat exporting capacity of the countries from which the bulk of our imported meat products have in the past been obtained, and new sources of supply in different parts of the world are being actively developed. The existence of a system of inspection on importation has naturally a special value and importance in cases where there are no satisfactory methods of control over the preparation of meat in the country of origin.

In reviewing the results of the inquiries made during the year in regard to local administration under the Sale of Food and Drugs Acts, Dr. Buchanan lays stress upon the importance of frequently reconsidering and revising methods of sampling in order to maintain the efficiency of the work done under the Acts, and to avoid stereotyped procedure.

In seeking to apply the procedure of the Sale of Food and Drugs Acts, in the interest of the consumer, it is often difficult to stop misleading descriptions and false labelling of foods, and to repress various trade customs which result in debasing the quality or purity of staple articles of food. For general guidance in these matters a comprehensive inquiry is often required reviewing the position of consumer, food manufacturer or importer, and retailer respectively, in order to ascertain the extent to which action can or should be taken under the Sale of Food and Drugs Acts or in other ways. Dr. Buchanan's report gives an account of the inquiries of this nature which it has been practicable to make during the year. Reports relating to the adulteration of rice, the addition of preservatives to cream, and the practice of fumigating meat with formaldehyde were separately issued during 1909. Inquiries of the

same nature are now in progress in regard to condensed milk, the composition of foods for infants, and the chemical treatment of flour. The experimental work necessary in these enquiries has now been facilitated by the provision of a chemical laboratory at the Board's offices.

* * * * *

I have the honour to be,

Sir,

Your obedient Servant,

ARTHUR NEWSHOLME.

APPENDIX A., No. 10.

REPORT by DR. G. S. BUCHANAN on the WORK of INSPECTORS of FOODS during the year 1909-10.

The report now submitted on the work of the Inspectors of Foods is arranged under the following headings :—

1. Work in special relation to the Public Health (Regulations as to Food) Act, 1907.
 2. Local arrangements for meat and food inspection.
 3. Work in special relation to the Sale of Food and Drugs Acts.
 4. Foreign and Colonial food legislation.
- Addenda : Circulars and Regulations, 1909.

I.—WORK IN SPECIAL RELATION TO THE PUBLIC HEALTH (REGULATIONS AS TO FOOD) ACT, 1907.

Inspections have been made during the year, principally by Dr. Coutts and Mr. Hancock, at the port and riparian sanitary districts in England and Wales named below, in connection with administrative and technical questions arising out of the Public Health (Foreign Meat) and the Public Health (Unsound Food) Regulations, 1908.

Port Sanitary Districts :—

| | |
|------------------|---------------|
| Barry. | *Liverpool. |
| *Bristol. | *London. |
| Cardiff. | *Manchester. |
| Exeter. | Newhaven. |
| Fleetwood. | Plymouth. |
| *Grimsby | *Southampton. |
| Hartlepool. | Sunderland. |
| *Harwich. | Swansea. |
| *Hull and Goole. | River Tees. |
| Ipswich. | River Tyne. |

†City of London :—

Metropolitan Boroughs :—

| | |
|--------------|-------------|
| †Bermondsey. | †Stepney. |
| †Poplar. | †Southwark. |

Other Boroughs :—

| | |
|------------------------|-------------|
| *†Newcastle-upon-Tyne. | Folkestone. |
| Dover. | |

In my report for last year I referred to the nature and general object of both series of regulations.† That relating to Foreign Meat was modified in certain details by the issue of amending regulations on the 27th September, 1909.§

* Principal meat importing districts.

† The sanitary authorities of these districts have special duties under the Regulations in conjunction with the port sanitary authority.

‡ Annual Report of the Medical Officer for 1908-9 : Appendix A, No. 9, p. 198.

§ See Addendum B, below.

The duty of making inspections and taking other necessary action under the regulations is imposed on the medical officer of health of the sanitary authority, who acts personally or through additional or deputy medical officers of health and inspectors or other assistant officers who have been appointed for the purpose with the Board's consent. At the end of the year now reported on, the Board had given consent to the appointment for this purpose of ten assistant medical officers of health and fifty-six other officers. At the principal ports visited by the Inspectors the local arrangements, which in some cases have necessarily been on a considerable scale, appear to have been organised on a satisfactory basis. In certain instances where the arrangements have been reported to be inadequate, the Board have made the necessary representations to the authority concerned by correspondence and by arranging for re-inspection.

In addition to inspections with special reference to local arrangements, inquiries have been made as to particular foods regarding which it was desirable to place information at the disposal of the medical officers of health at the ports. Questions not infrequently arise under the regulations which materially affect shipping and trading interests, and in such matters it is specially important that uniformity of procedure should be secured, as far as possible, at the different ports concerned. Action for this purpose has been greatly facilitated by the medical officers of health who have promptly forwarded information in cases where foods have been found to present unusual or suspicious characters. In some of these cases the results of the inquiry and the considerations involved have been embodied in circular letters issued by the Board to port sanitary authorities and placed on sale for the convenience of importers and other traders concerned.*

Some of the principal matters which have thus come under notice may here be referred to.

Carcass Meat : Beef, Mutton, Lamb, &c.

According to the Annual Statement of Trade for 1909, the total quantity of beef and mutton, fresh, chilled, and frozen, imported during that year at ports in the United Kingdom was 10,902,360 cwts. Of this quantity, the larger portion consisted of whole, half or quarter carcasses of refrigerated or frozen meat imported from Argentina, New Zealand, Australia, and United States of America, Uruguay, and Chile. The fresh carcass meat which is imported from the Continent consists principally of fresh pork and veal, and only to a relatively small extent of beef and mutton.

Under the Regulations samples of imported carcass meat have been examined at the ports concerned, and further examination has been made of consignments from which the samples presented any unusual or doubtful character. Special attention has also been given to meat coming from new sources of supply, and from countries in which no organised system of meat inspection at the place of slaughter exists. So far as may be judged from examination made in this way, the condition of frozen and refrigerated carcass meat imported from the countries above-named has been satisfactory as regards freedom from disease, the principal occasions for condemnation having been the existence of unsoundness due to accidents of packing or transport. The same may be said generally in the case of fresh meat imported from Continental ports.

* See Addendum A, below.

Reference may, however, be made to the recent arrival of a consignment of 553 sides of beef from Antwerp, of which no fewer than 21 sides were found to be conspicuously affected by tuberculosis at the port of Harwich and in the City of London and Finsbury. From information supplied to the Board by the Foreign Office it appeared that this consignment was derived from a shipment of Danish cattle, rejected on the German frontier on the application of the tuberculin test, and subsequently shipped to Antwerp for slaughter. Communications have since been made to the Belgian Government regarding the absence of adequate examination of these carcasses at the Antwerp slaughter house, and the attention of the medical officers of health of the importing ports has been directed to the need for detailed examination of consignments of similar origin.

Instances have been reported where imported beef has been found to have been "stripped"—*i.e.*, the pleura, which is the common seat of tuberculous lesions in the thorax, has been removed. The "stripped" carcass, even though it shows no tuberculous lesions, is always to be suspected as tuberculous, and in issuing the Amending Regulations in 1909, the Board took the opportunity to include "stripped meat" in the class of foreign meat which is to be refused admission for human consumption.

Some difficulty has been experienced by meat inspecting authorities in this country in deciding upon the fitness for food of carcasses of veal from calves which are so immature as to suggest that the animal was killed at the time of birth, or may have been foetal. The carcasses in question were principally imported from Holland, and special attention was drawn to them by the medical officer of health of the City of London. A decision of the Netherlands Minister of Agriculture communicated to the inspecting officials on November 29th, 1909, has now prohibited the export from Holland to the United Kingdom of the carcasses of calves which, when weighed without the head, skin and intestines, are less than $21\frac{1}{2}$ kilos ($47\frac{1}{3}$ lbs.). The rule is an arbitrary one, but should ordinarily suffice to eliminate the calves to which objection may be taken on the ground of immaturity.

Carcass Meat : Pork.

(a) *Certified as to inspection in the country of origin.*—The examination of carcasses of pigs at our ports has been facilitated by the system of "official certification" in Canada, Denmark, the Netherlands, and New Zealand which was referred to in my report of last year. On May 1st, 1909, the system of inspection of meat for export which had obtained in the Netherlands was modified in consequence of the Dutch Inspection of Meat for Export Law, 1907, and the provisions of subsequent official decrees, coming into operation. Submission of meat to examination by the officers of the Netherlands meat inspection service, which was formerly optional, is now compulsory in the case of all meat exported to the United Kingdom. After receiving detailed information of the new requirements of the inspection service in regard to the rejection of meat for disease and the observance of due precautions to prevent contamination of the meat at slaughter houses and packing establishments, the Board accepted the form of label which attests that pork and pork products have complied with these requirements as an "official certificate" in lieu of that which had previously been used.*

* Compare Circular of 29th April, 1909 ; Addendum A, below.

Since the institution of systematic examination under the Board's Regulations, carcasses of Belgian pigs have frequently been condemned on account of the presence of tuberculous and other disease conditions. In Stepney, the principal district concerned, 276 out of 13,860 carcasses were so condemned in the early part of 1909. In February, 1909, the Belgian Government informed the Foreign Office that they proposed to make special arrangements for the veterinary inspection of pork intended for export to the United Kingdom, and to adopt a system of labelling pork which had passed this inspection on lines similar to that now in operation in Holland. The system is based on the existing Belgian regulations for the inspection of meat, supplemented for the purpose of complying with the British regulations by special instructions issued by the Belgian Minister of the Interior and Agriculture. These instructions provide for the rejection for export of all pigs ascertained to be suffering from certain scheduled disease conditions, including any degree of tuberculosis. The Board obtained a further assurance from the Belgian Government that a special officer would be appointed to supervise and report upon the general hygienic conditions of the establishments in Belgium where pork was prepared for export. The Belgian label was notified as an "official certificate" in September, 1909. At the same time the acceptance of certain labels or marks attesting inspection in the States of Victoria and New South Wales were similarly notified, as a result of communications received from the Governments of those States.*

Competent examination at the place of slaughter must always furnish a more satisfactory means of detecting disease in meat than can be afforded by inspection of the dressed carcass, and all diseased conditions should be absent from the carcasses of animals which have been examined before importation under the systems above referred to. Typical consignments of "officially certified" pork have been examined from time to time in London, Harwich, Stepney, and other port sanitary districts and the existence of disease has seldom been detected. This has also been the experience of the central markets in London. In a few instances, however, the detection of tuberculous lesions has been reported, and in each case the facts have been communicated to the representatives of the inspecting authority, in order that inquiries may be instituted at the slaughter houses concerned.

(b) *Uncertified*.—During the year, carcasses of pigs from France were imported in considerable numbers at several of the southern ports which previously had not received meat of this description, and it was consequently considered desirable to make local inquiries as to the sufficiency of the arrangements for detailed inspection of this meat in the districts concerned. A consignment of 169 pig carcasses from Russia, which were imported at Bermondsey in January last was required to be re-exported on account of the heads having been removed before shipment.

A British firm which has lately set up a large slaughtering and packing establishment at Hankow, commenced during the year to ship frozen pork to the mouth of the Yangtse, a distance of about 600 miles, and thence to London. The first consignment arrived in July, 1909, and consisted of 4,643 entire carcasses. These carcasses arrived in sound condition. They were stated to have been examined

* Compare Circular of 30th September, 1909 ; Addendum A, below.

for disease at the packing house, but it was obvious that the examination had not extended to the parts about the throat, where evidence of tuberculosis is most often met with. The whole consignment, by arrangement between the port and city authorities, was inspected by the medical officer of health of the City of London, and on being thawed out 391 carcasses, or 8·4 per cent., were condemned and surrendered for destruction, in nearly all cases on account of the presence of tuberculosis. A series of samples was examined by the medical officer for the Port of London for trichinosis, but in all cases with negative results. Some of the meat was put on to the market as pork, but the greater part was salted. It was arranged by the importer that, in any future consignment, examination for disease at the packing-house should be more carefully made.

It was suggested in the press and elsewhere, that these pigs might be of the wild variety that frequent public streets and villages in China, living as scavengers on whatever garbage they can pick up. The importer, however, stated that with the exception of a small number which had been specially marked and separately packed, all the animals were of a breed distinct from the common razor-back pig of China, and that it is from pigs of the latter class that scavengers are drawn. The pigs slaughtered at Hankow were stated to be raised in the district between Tung-ting Lake and Lokow, where the pig trading industry is a large one, and the animals are fed on rice. These statements received confirmation from the British Consul at Hankow, and subsequently from the medical officer at Hankow who had inspected the pigs.

Further large consignments arrived in London and Liverpool in the months of January and March, 1910. In the majority of cases, however, the importer, for trade reasons, had removed the backbones from the carcasses. The Foreign Meat Regulations require that the meat should be presented for inspection in the form of the whole carcass and it became necessary to order the re-exportation of the greater part of the consignment referred to. It is right to add, however, that there has been no reason to suppose that the condition of these subsequent consignments, as regards disease, was more unsatisfactory than that of the original consignment. The medical officer at Hankow referred to above has informed the Board that in the case of these later consignments a very strict examination for tuberculosis had been made. He has also furnished evidence that trichinosis is a disease very rarely met with among the Chinese, who consume large quantities of pork.

“Offal.”

Large quantities of butchers' “offal”—livers, kidneys, hearts, plucks, sweetbreads, &c., are imported in a fresh condition from Holland and Denmark, and frozen from South America, the United States, New Zealand, and elsewhere.

When the regulations first took effect, much difficulty was experienced at the ports of arrival in the examination of frozen offal brought in boxes or bags. Several representations were received by the Board on the subject, which was inquired into by Dr. MacFadden. The only practicable method of examining consignments of this sort is by thawing out sample boxes, and deciding as to further examination from the results so obtained. One of the principal circumstances which necessitated extensive sampling and thawing was the fact that the organs in question usually arrived frozen together in a solid mass,

moulded to the shape of the receptacle, and it was sometimes found that the interior of these masses, when thawed, showed evidence of disease or decomposition.

Thawing out samples on a considerable scale, however, is a troublesome process, which may entail considerable inconvenience and loss to the importer. It was ascertained that some importers, in order to facilitate examination, had arranged that livers, plucks, and similar organs should be frozen separately before packing, with the result that the organs retained their natural shape and could be individually inspected in the frozen state, and that by this proceeding the necessity for thawing out sample boxes might be materially diminished. Importers generally expressed their willingness to arrange for the freezing of individual organs separately. Some difficulty was presented by the case of small articles such as pig's and sheep's kidneys and sweetbreads, but even in the case of these organs much improvement could be effected by careful packing in shallow boxes. The considerations involved were embodied in the Board's Circular of 29th April, 1909,* and the new methods of packing have now become widely adopted, with general advantage.

Frozen livers from Argentina have in many cases been condemned, owing to the presence of parasitic cysts and other disease conditions. Following on reports received from the medical officers of health of London and Liverpool, the Board have caused representations to be made to the Argentine Government, in anticipation of a stricter supervision being exercised in this matter by the meat inspection service of that country.

Offal from the United States has also frequently been found to present evidence of disease, and in some cases special difficulty was experienced in consequence of livers and other organs having been trimmed before exportation, presumably in order to remove diseased or damaged portions. The objections made to this practice in the Port of London and elsewhere resulted in an order being issued to meat inspectors in the United States requiring them not to certify for export edible organs, such as livers, which have been mutilated, or from which portions have been removed.

Offal imported fresh from Continental ports has frequently been found diseased on examination at Hull and Harwich. At these ports, and in the ports of London, Liverpool, Manchester, and Southampton, it was necessary to condemn about 170 tons of fresh and frozen offal during 1909.

Chemical examination has been made at several ports of offal, tongues, ox-cheeks, &c., when imported in barrels containing pickle. Consignments of ox-tongues and pigs' maws examined in the ports of London and Grimsby, respectively, have been required to be re-exported on account of the detection of formaldehyde.

Cut Meat in Boxes, Barrels, &c.

The provisions of the Foreign Meat Regulations, and their application on lines indicated in the Board's Circular of December 12th, 1908, have been effective in preventing the importation of scraps trimmings, and other portions of meat insufficiently identifiable with definite parts of the carcass. Importation of meat in this form had previously seemed likely to reach formidable dimensions, with undesirable results.

* See Addendum A, below.

Boxes containing pieces of meat of all sorts frozen together, were not infrequently met with in 1909, and a consignment of this sort arrived in Liverpool from Victoria as recently as January last, but as a whole, cut meat imported in boxes and barrels is now almost always found to consist of definite cuts which admit of individual examination.

In one instance, at Hull, a consignment of scrap meat from Copenhagen was brought in packages of about 3 lbs. weight, each package being roughly sewn up in a skin in the form of a sausage. The claim that these were *bonâ fide* sausages could not, however, be sustained, and the meat was re-exported. At the same port attention was drawn to the occasional importation of scrap meat or trimmings of carcasses which contained bone, but were otherwise open to the same objections as the boneless scrap meat specified in the Foreign Meat Regulations. In issuing the Amending Regulations of 1909, the Board took account of these objections.

Bacon, Ham, Salted Mess-pork, Pig's Tongues, &c.

The canning of pig's tongues, which are imported salted from the United States, forms an important industry in Liverpool and its neighbourhood. These tongues are imported without an "official certificate" and some difficulty arose in Liverpool as to the interpretation of the Foreign Meat Regulations in regard to them. Some consignments were detained at that port and at Hull pending communication with the Board, and were ultimately released. On inquiry as to these and other salted pork products of similar origin, it was found that their examination on importation was sometimes rendered useless by the removal of lymphatic glands which may show signs of disease, and in the Amending Regulations, 1909, provision was made to check this practice.

The medical officer of health of the Port of Manchester informed the Board in October, 1909, of the importation of salted pigs' maws showing signs of acute inflammation, probably due to swine erysipelas. These maws, which were destroyed in Manchester, came from Denmark via Hamburg, and were not certified as having been inspected by the Danish authorities. As a result of action taken on receipt of this communication, a similar consignment was subsequently seized in the London Central Markets. By the Amending Regulations fresh and salted pigs' maws and other pigs' offal are now required to be imported with an "official certificate" as to inspection in the country of origin.

Moulds on Meat.

In December, 1908, a deputation from the Frozen Meat Trade Association which made representations to the Board on the subject of the Foreign Meat Regulations, alleged that the criteria applied by local authorities, when deciding on the condemnation of refrigerated meat on account of mould, were unduly severe. It was arranged that Dr. Hamill should make some inquiry into the question, and the Association was invited to give information as to cases of condemnation which might arise illustrating the objections made. No such information has been forwarded during the year by the Association, but medical officers of health have, in several instances, furnished Dr. Hamill with samples of mouldy meat, and by arrangement with the Director of the Royal Botanic Gardens, Kew, the nature of the

moulds has been investigated by Mr. G. Massee at the Jodrell Laboratory. Inquiries have also been made as to the practice of port medical officers of health and of the London Central Meat Market authorities in regard to the judgment of mouldy meat.

The organisms associated with mould on meat are numerous, principally varieties of *Penicillium*, *Mucor*, *Phycomyces*, *Verticillium*, and *Oospora*, and include a specialised and very frequently occurring form, *Cladosporium herbarum*, causing "black spot." Coloured growths due to bacteria, *e.g.*, *Bacillus prodigiosus* ("red spot") may also be associated with mould. There is little or no evidence which suggests that these moulds or their products are toxic in the raw or cooked condition. The growth of mould, however, may be due to causes which also favour the decomposition of meat, and meat showing conspicuous mouldiness requires special attention to detect signs of commencing decomposition or "taint." Apart from this, "mouldiness" may affect the appearance of meat in such a way that it would in practice be refused by any ordinary purchaser. "Black spot" makes meat unsightly and ordinarily unsaleable, owing to the difficulty in removing it without spoiling the appearance of the joint. These considerations are properly taken into account, not only by authorities who have to judge of the soundness of meat when exposed for sale in markets or retail shops, but also by inspectors examining meat at the place of importation, who may have to consider both the extent of mouldiness already present and the probable condition of the meat soon after its removal from the refrigerating chamber.

The organisms in question grow essentially upon the surface of the meat, and there seems to be no objection to the sale of mouldy meat which is sound apart from the mould, provided that adequate steps are taken to remove the mould. In some cases, particularly in "black spot," wiping the surface is insufficient for this purpose, and trimming away the affected parts of the meat must be resorted to. On the information available, there seems no reason to consider the requirements of medical officers of health in this matter to be unduly severe. At the Central Meat Market it is not the practice to condemn whole quarters or carcasses for mouldiness if the owner of the meat is willing to remove the mouldy portions. Whole quarters may be destroyed on account of mould, but this occurs only when the owner prefers to surrender the whole of the meat for destruction rather than to undertake trimming.

Mould contamination is specially liable to occur when the meat has been improperly handled or stored prior to its being placed in the refrigerating hold, and the spread of mouldiness is greatly encouraged by any faulty conditions in transit, particularly by failure to maintain the temperature of refrigeration at a uniform level. The occurrence of mould on refrigerated meat has lately diminished owing to the greater care and attention which has been exercised in transport and in the handling of carcasses before shipment. The practice of sanitary authorities in carefully examining mouldy meat has no doubt contributed materially to this result.

Treatment of Refrigerated Meat by Formaldehyde.

In a report separately issued in July, 1909,* consideration was given to a process for the employment of formaldehyde as an aid to

* Food Reports, No. 9. On the application of formaldehyde to meat. (Dr. G. S. Buchanan and Dr. S. B. Schryver). Wynman and Sons, Price 2d.

the preservation of refrigerated carcass meat brought from South America. In this process both the meat and refrigerating chamber on the vessel received a series of fumigations by formaldehyde. It was apparently believed that the action of the vapour upon the meat was limited to the surface, and that formaldehyde existed only in infinitesimal amount, if at all, in meat so treated. This belief seemed open to doubt in view of the ability of formaldehyde to penetrate when it is used for other disinfecting purposes, and of the readiness with which it combines with the protein constituents of food stuffs. The question was one of importance since formaldehyde is a very powerful disinfectant, and may retard digestion when present in food in comparatively large dilution. Dr. S. B. Schryver, D.Sc., made a careful study, for the purpose of the inquiry, of the methods of detection of formaldehyde (free, polymerised, or in combination with protein) in meat, and devised a method which permitted the estimation of formaldehyde in meat with considerable delicacy and exactness. On applying these results to refrigerated meat from Argentina, treated by the process in question, it was ascertained that where the muscular surface had been exposed to the vapour the contamination of the meat was relatively large (*e.g.*, 1 part of formaldehyde in 10,000 to 1 part in 3,500), that penetration took place to a material degree, and that formaldehyde was not readily removed from the meat even when the latter was kept for some weeks after formalisation. Thorough roasting or boiling removed or diminished the quantity of formaldehyde in the meat, but meat which had been grilled lost little of the formaldehyde, the effect of the grilling apparently being to make the aldehyde penetrate further into the substance of the meat. Formaldehyde was also present in cooked sausages made in the ordinary way from the meat.

After the issue of the report the importers using this process took steps to limit the extent and frequency of the fumigations used. Specimens of later consignments from Argentina, examined by Dr. Schryver and by Dr. Monier Williams, have shown improvement: in the consignment most recently examined the formaldehyde on the surface of the meat was estimated not to exceed 1 part in 1 million. Meanwhile, a small experimental consignment of refrigerated beef, treated by the process, had been dispatched from Australia before Australian importers were aware of the considerations set out in the report, and samples from this consignment showed on examination proportions of formaldehyde which in some parts of the meat were as high as 1 in 2,500. The importers represented to the Board their intention of promptly taking all practicable steps to effect a reduction in the amount of formaldehyde. Although the examination of a subsequent consignment from Australia showed that a marked improvement in the formaldehyde content had been effected, it seems important that further improvement should be made, if this process is to continue to be applied.

Unsound Food and "Sorting" Examinations.

The Public Health (Unsound Food) Regulations, 1908, contain various provisions for the inspection of foods landed in bulk. In the case of consignments which a preliminary examination has shown to contain articles which are unsound or unfit for human consumption, the medical officer of health may by notice to the importer require the consignment to be detained pending an application

being made to a Justice. In most cases the importer does not wish such an application to be made, as he is willing to make any necessary arrangements for the separation of the unsound articles, and for their disposal, by destruction or otherwise, in a manner which will be approved by the medical officer of health. In these circumstances it is usually convenient that the medical officer of health, when giving the notice, should indicate the method of dealing with the consignment which he is prepared to approve. After enquiry into the system adopted at several ports, the Board issued a circular (July 26th, 1909)* to port sanitary authorities which contained examples of forms suitable for use in the various circumstances in which unsound foods may have to be dealt with by means of notices.

One of the forms provided for the case where it is necessary for the medical officer of health formally to require the importer, master of the ship, or other person having custody of lands or premises to afford access to the inspecting officer and to arrange for the unpacking, opening, or uncovering of goods for the purpose of examination. It is satisfactory to find that at most of the ports visited these formal requisitions are seldom needed, and that the facilities which the inspecting officers require in this matter are readily afforded. At Swansea, however, there appeared to be need in some cases for these requisitions to be used and followed by suitable action: too much weight had been given by the sanitary authority to objections raised locally to affording facilities for inspection. In the port of Manchester proceedings were recently instituted in the case of a firm which had disregarded a requisition by the port sanitary authority to detain a consignment of suspected fruit. A fine of £20 and costs was imposed.

In the case of canned foods the sorting above referred to has resulted in the surrender to the sanitary authorities of large numbers of cans which were "blown" or the contents of which were otherwise unfit for food. In the London port and riparian sanitary districts, and in the ports of Liverpool and Manchester, a total of more than 400 tons of such canned foods was surrendered in 1909. It must not be supposed that before the days of food inspection at the ports all canned foods of this nature went forward for sale for human consumption, but there is no doubt that many of the cans in doubtful condition which the importer rejected found their way ultimately to the retailer and to the consumer. The examination now made at the ports appears already to have caused greater care to be taken at the place of preparation, and has enabled importers to exact a higher standard from the foreign packer.

Similar considerations apply to the examination, sorting, and disposal of damaged grain, unsound fish and unsound fruit, which has been organised or is in course of organisation at the ports where these articles are landed. In the case of fruit it often happens that a considerable proportion is found unfit for transit to a distant market, but is capable of being used for food if disposed of immediately on landing. In sorting under the supervision of the sanitary authority at Hull, Cardiff, and in the London Docks, this consideration is taken into account, and the fruit which is passed for speedy sale is forthwith taken away by hawkers.

* Addendum A, below.

Mr. Hancock reported during the year on an enquiry as to the disposal of canned foods which are rejected on sorting on the premises of wharfingers in London. In some instances these articles were taken by a contractor without previous denaturing or other suitable precautions against their being subsequently used for food purposes. The Board made representations on the subject to the Borough Council concerned.

Condensed Milk.

In the examination of consignments of condensed milk for revenue purposes it is necessary that specimen tins should be punctured. When the examination is completed and the goods released by the Customs authorities, these "spitted" tins, as they are called, are usually resealed and replaced in the cases from which they were taken.

In consequence of contamination by the "spitting" tools, or exposure to the air, the contents of the "spitted" tins, when these are resealed are liable to early putrefaction, and in practice the resealed tins, on keeping, frequently become "blown" at an early date. It is obviously desirable that the milk in these tins, if used at all, should only be supplied for immediate consumption. Dr. Coutts ascertained, on inquiry of the principal importers, that they were prepared to co-operate with the port medical officers of health in making suitable arrangements for this purpose. The trade association concerned issued a circular recommending that the small tins should be handed over to the medical officer of health, while large tins, which are sometimes as much as 28 lbs. in weight and have a material money value, should only go forward where approved arrangements have been made by the importer for the tin being used immediately. This circular received general acceptance and the procedure recommended appears to meet the needs of the case.

"Inedible" Lards and Fats from the United States.

In packing houses in the United States under the control of the Bureau of Animal Industry, considerable quantities of fats of various kinds are obtained from meat which has been condemned as totally unfit for human consumption on account of extensive disease or for other reasons, and has been required by the official rules to be "tanked." Under an Order of the Bureau these fats, in order to be allowed to be shipped from one State to another State, or to a foreign country, must, unless previously denatured, be packed in containers the ends of which are painted white and conspicuously stencilled or burned with the true name of the product and the word "inedible."

The "inedible" fats in question are imported into this country and in many cases resemble in appearance inferior unrefined lard. Early in 1909 it was represented to the Board by persons concerned in the genuine lard business that "inedible" fats were being used to mix with genuine lard, and that the adulteration was affecting injuriously the pure lard industry in this country. Dr. Coutts, who inquired into the matter at Liverpool and Manchester, ascertained that this was the case.

The importation from America of these "inedible" fats was practically limited to the port of Liverpool. The matter received the close attention of the medical officer of health of that port, who

detained consignments until adequate proof was furnished that the material would not be used for food purposes. Over 6,500 barrels and packages had thus come under supervision at Liverpool by the end of 1909. Communications were made to other ports to which these fats might be conveyed. Action was also taken in Ireland, where proceedings were instituted against a Belfast firm which was in possession of barrels of "inedible grease" on which these words had been painted over and "Pure Continental Lard" substituted.

As the result of the action taken by the Liverpool authorities large quantities of "inedible" fats brought to that port have been re-exported, mainly to the continent. In view of the possibility that these fats may there be used in the preparation of food material which is afterwards sent to the United Kingdom, the Board have caused communications to be made in this matter to the foreign governments concerned. Much administrative difficulty would obviously be saved if regulations in force at the American packing houses extended to requiring all the fats in question to be denatured at the place of origin. It is understood that the principal objection to this course is that no denaturant has so far been suggested which would not damage the fat for industrial use.

II.—LOCAL ARRANGEMENTS FOR MEAT AND FOOD INSPECTION.

In visiting Dover, Exeter, Folkestone, Hartlepool, Hull, Middlesbrough, Newcastle-upon-Tyne, Plymouth, Sunderland, and Swansea, with reference to the examination of imported foods, inspectors have also made inquiries and reports on the local arrangements for food inspection in the towns themselves. The Board have in certain cases communicated with the authorities concerned, on receipt of these reports.

Brief reference may here be made to the inspection of home-killed meat in the boroughs above mentioned. In each of these towns slaughtering takes place either wholly or in greater part in private slaughter-houses, and meat inspection is subject to the serious drawbacks which the existence of such slaughter-houses almost invariably entails. In Hull and Newcastle-on-Tyne special efforts have been made by the Town Council on the advice of the medical officer of health to overcome the difficulties of inspection inherent in the existence of a large number of slaughtering establishments situated in different parts of the town, where killing and preparing meat may take place at uncertain and irregular intervals. In both places the detection and proper disposal of diseased meat are effected systematically and on a considerable scale. This result has been brought about in large measure through the butchers having come to realise on the one hand that if all information is given to the authority on the discovery of diseased or suspicious meat, they will receive assistance and incur no risk of prosecutions; and, on the other hand, that attempts to trade in unsound or diseased meat will be rigorously dealt with. In Hull, for example, the chief veterinary inspector, who has four assistants for this and other purposes of food examination, inspects systematically at the time of slaughter at the 62 private slaughter-houses in the borough, and makes additional visits to these places in consequence of the requests made by butchers for his services. These requests may extend to the examination of meat of animals killed at slaughter-houses outside

the city area, and in such cases the butchers, in consequence of the representations of the inspectors, have adopted the desirable practice of requiring the offal to be sent for inspection along with the carcase. In Newcastle-upon-Tyne the veterinary inspector and his assistants act on similar lines in regard to some 120 private slaughter-houses in the town. In this borough, the readiness with which butchers notify tuberculous disease in cattle is increased by the co-operation with the authority of the district butchers association, which has established a system of insurance to cover the loss from condemnation on account of this disease.

At Sunderland the position as regards slaughter-houses was found very unsatisfactory. Mr. Hancock ascertained that slaughtering took place in no fewer than 140 private slaughter-houses. The majority of these premises were wholly unfitted for the purpose of slaughtering, nearly 100 being in unduly close association with dwelling-houses, while in 29 cases slaughtering took place practically in the same room as that in which the retail trade of the butcher is carried on. In 13 instances the slaughter-house was also used for the manufacture of sausages and other prepared meats, a practice specially dangerous on account of the risk of contamination of the meat by infectious matter of intestinal origin. Sheep and pigs were sometimes slaughtered at the rear of butchers' shops in yards which may be used in common by the butcher and other tenants. In some instances no accommodation was provided for the reception of animals awaiting slaughter, the animals being allowed to run about the yards, or even being kept in coal houses. The local slaughter-house byelaws were not in accordance with modern principles, and, although the Town Council had obtained powers in a local Act of 1885 to prohibit slaughtering except on premises provided, registered, or licensed by the Corporation, these powers had not been utilised, and no public slaughter-house had been provided.

At the time of Mr. Hancock's visit, a detailed survey of the condition of slaughter-houses had been completed, and a report on the subject was being prepared for the consideration of the Council. The Board have since taken steps to press upon the Council the necessity of a comprehensive reform being effected; the continuance of such primitive and objectionable conditions at the present day, particularly in a county borough of the importance of Sunderland, is surprising and it is to be hoped that they will speedily be remedied in an effective manner. The existence of somewhat similar conditions was reported at Hartlepool, and representations were made by the Board to the Town Council on the subject.

At Exeter, in May 1909, enquiry was made as to the precautions taken in consequence of the discovery in the Devon and Exeter Hospital of two cases of trichinosis. These cases resulted from the consumption of meat from a pig which had been reared and killed at a farm in the St. Thomas rural district. The pork, in which trichinae were detected, had been cooked by baking, but presumably the temperature of some parts of the meat had not reached 60° to 70° C., which is stated to be the temperature required for the destruction of trichinae. The occurrence of trichinosis in the human subject in this country is comparatively rare, and the presence of this disease in swine is not often detected. No further cases of trichinosis were reported, and the examination of several locally killed pigs for the presence of trichinae had only negative results.

III.—WORK IN SPECIAL RELATION TO THE SALE OF FOOD AND DRUGS ACTS.

Local administrative questions.

Representations and reports received by the Board during the year on matters relating to local administration of the Sale of Food and Drugs Acts have frequently entailed special inquiries, interviews or correspondence. Inspectors visiting certain districts in connection with the Regulations above referred to have also made detailed investigations and reports upon local methods of administration of the Sale of Food and Drugs Acts, and have conferred with the officers concerned with a view to increasing the efficiency of the work carried out under these Acts.

An inquiry made in February last in the county of Huntingdon, by Dr. Hamill, illustrates certain weak points in administration which are not infrequently met with elsewhere. Four police officers act in this county as the sampling officers, each within his own division of the county. Dr. Hamill found that in each division the whole of the samples taken during the year were collected in a single quarter, and usually were all taken on one day, or on two or three consecutive days, in that quarter. The time when sampling was due and the fact that it would be followed by a long period of inactivity on the part of the sampling officer, could hardly fail to be known throughout each division. Apart from this objection, the practice of sending a large number of miscellaneous food samples to the public analyst at one and the same time is inadvisable in view of the limited time within which the analyst's report must be made, and has other disadvantages. No attempt was made to take preliminary samples without the formalities required by the Acts, or to make systematic use of agents in sampling, although it is now generally recognised that these methods are of great utility in the detection of certain offences, such as the substitution of margarine for butter. The attention of the county council was directed by the Board to these considerations after the inquiry referred to.

In the borough of Beverley, it was ascertained that the samples collected by the police superintendent were supplemented by the collection of other samples taken informally under the direction of the medical officer of health. The Board suggested to the town council that the latter officer should, in future, direct the work of sampling under the Acts, as is done in the majority of other boroughs.

Local inquiries were made in several cases where new arrangements for carrying out the work of public analyst were proposed by the local authorities. The new arrangements made during the year now reported on included in one district, the City of Hull, the appointment of a public analyst who is provided by the Corporation with a laboratory and assistants, and is required to devote his whole time to technical work for the city.

In several of the counties and boroughs visited by the inspectors, the question of the selection of samples for analysis called for consideration. It is frequently found that, apart from milk and butter, the samples taken annually consist of a considerable variety of single specimens of different articles of food which have been collected practically at random by the sampling officers concerned. Experience seems to show, however that it is usually much more

advantageous to concentrate attention from time to time on particular forms of adulteration or suspected adulteration, with a view to obtaining reports from the public analyst on the condition of a series of samples collected with special reference to the question under consideration. On different occasions, for example, the question to be investigated may be the purity of a particular drug as sold in the district, or the accuracy of dispensing prescriptions, or the improper sale of substitutes (such as artificial vinegar for malt vinegar, or vegetable fats for lard), or the nature of articles sold as foods for infants, or the presence of preservatives or metals in particular foods. In cases such as these, the times and places at which the samples should be procured, and the method of sampling to be adopted depend upon the subject under investigation and the nature of the information required, and should be carefully settled beforehand. In doing this, it is important that the officer responsible for the direction of sampling should frequently consult with the public analyst, and, if he is not himself the medical officer of health, should also consult with that officer. Annual and special reports recently received from several districts, notably the counties of Middlesex and Derby, and the boroughs of Birmingham, Liverpool and Portsmouth, illustrate the advantages of "series sampling" of the kind referred to.

Milk.

Milk at Middlesbrough.—In England and Wales during the past five years the proportion of milk samples reported against by public analysts for various causes, including deficiency of fat below the limit specified in the Sale of Milk Regulations,* has ranged from 9·7 to 12·5 per cent. On inquiring as to the administration of the Sale of Food and Drugs Acts in the borough of Middlesbrough, Mr. Hancock found that during this period the proportion of milk samples reported against on the ground that the milk fat was below the limit fixed by these regulations, had been unusually high, and had increased from 14 per cent. in 1905 to 17, 30, and 35 per cent. in the three following years. In 1909 the proportion was 32 per cent. This progressive deterioration could not be attributed to alteration of methods of sampling, and had occurred notwithstanding the considerable energy which had been shown by the sampling officers of the local authority.

The milk supply of Middlesbrough is obtained mainly from local farms, and the borough authority had in several instances caused samples to be taken at the farm which confirmed the statement of the vendor that milk reported as deficient in fat had been sold as it came from the cow, and that no abstraction of fat had taken place. The consideration that milk with a fat content of less than 3 per cent. might be produced by the cow had been strongly represented in the district by the local dairy farmers' association. In consequence, it was alleged, of the attitude of the magistrates when proceedings were taken in cases of suspected adulteration, it had become the practice

* The Sale of Milk Regulations, issued in 1901 by the Board of Agriculture and Fisheries, specify that where a sample of milk contains less than 3 per cent. of milk fat, it shall be presumed, for the purposes of the Sale of Food and Drugs Acts, 1875-99, until the contrary is proved, that the milk is not genuine by reason of the abstraction therefrom of milk fat, or the addition thereto of water. The proportion of fat in milk of average quality is, of course, higher than the 3 per cent. fixed by these Regulations.

of the local authority to disregard the presumption of adulteration established by the Sale of Milk Regulations, and not to institute legal proceedings against the vendor in any case where the sample of milk had a fat content of over 2·7 per cent. Where no proceedings were instituted, the vendors were usually cautioned, but the general knowledge that milk containing 2·7 per cent. and upwards of fat could be sold with impunity had tended to weaken the effect of the caution.

The position thus brought about is probably responsible, to a material extent, for the deterioration in the quality of milk in Middlesbrough which is indicated by the figures given above. The result cannot be considered satisfactory from the point of view of the consumer. Apart from the fact that no effective pressure is put on the producer of milk of abnormally poor quality to improve the character of his product, the procedure followed appears in ordinary circumstances to offer immunity from legal proceedings to all persons who abstract fat from milk of ordinary or good quality, provided they do not go below 2·7 per cent. Inquiries at Sunderland, Hartlepool, and other towns in the north-east of England have shown a similar state of affairs, in which similar causes appear to be operating.

Reconstructed Milk.—Early in the present year Mr. Hancock made inquiries, with the assistance of the firm concerned, into a process for reconstructing milk after separation and concentration which has lately been employed on a commercial scale at an establishment near London. In this process, which is said to have considerable vogue in New York and other American cities, milk is separated, and the separated milk concentrated in a specially constructed receptacle at 140° F. (60° C.), while a current of filtered air is passed through the liquid. By concentration for 2½ hours to 3 hours the separated milk is reduced to about one-fifth of its original volume. The cream is also exposed, for about an hour, to similar treatment. The concentrated separated milk and the cream are then dispatched by road or rail to a town depôt, at which they are mixed in any desired proportion with boiled tap water, and distributed in bulk or in bottles.

At the establishment in question, this reconstructed milk was stated always to contain at least 3·25 per cent. of milk fat. Analysis of several samples confirmed this statement, and also the claim of the producers that, in consequence of the low temperature of concentration, enzymes are retained which are natural to raw milk but are destroyed in ordinary processes of pasteurising. On the other hand bacteriological tests failed to confirm the claims of the producers that the milk was exceptionally free from bacteria, and that the process could be relied upon to destroy any pathogenic organisms which might have been present in the original milk. Bacterially the reconstructed milk closely resembled an ordinary raw milk of reasonable cleanliness.

It seems desirable that when milk is prepared by this process, the product should be sold as a prepared milk.

Paraffin in Margarine.

In 1909 the Board received communications from the Board of Agriculture and Fisheries and the Government Laboratory regarding the presence of paraffin in certain samples of margarine. The detection of this substance was also reported by the public analyst for Lancashire. Inquiries were made in two instances in which the

manufacturer or importer concerned could be traced. In the first case the manufacturer admitted that he had used 6 per cent. of soft paraffin in the preparation of his margarine, with the object of improving its consistency and texture. He had, however, discontinued the practice shortly before the Inspector's visit in consequence of proceedings which had been instituted in the county of Lancashire against retailers to whom the margarine had been supplied. In the second case it was ascertained that the margarine had been imported from Holland and was intended for use as "cake margarine." One consignment contained at least 10 per cent., and another 2·3 per cent. of hard paraffin (melting point 55° C.). The importer, who represented that the first of these consignments was merely experimental, proposed in future to cease importing any margarine thus prepared.

Paraffin is devoid of any value as food, and in some circumstances (particularly where a paraffin of high melting point is used) its presence in food appears liable to be deleterious to health. Since the inquiries referred to the Board have by circular requested the attention of local authorities generally to the possibility of the employment of paraffin in the preparation of margarine and also of lard and lard substitutes, and have recommended suitable action in cases where this form of adulteration is detected.

Rice "faced" with mineral matter.

A detailed report on this subject by Dr. Hamill was separately issued during the year.* Rice prepared by the miller for sale in this country is always decorticated and mechanically polished. In addition, it has become usual to use colouring-matters and special polishing or glazing substances in order to make the appearance of the grain more attractive. The use of these materials may also have a further commercial advantage by creating a closer resemblance in appearance between rices which have been obtained from different sources or have different commercial values.

Powdered steatite (or talc) is the material principally used for the purpose of polishing or "facing" in this country, and also in Holland, where the greater part of the rice sold in England is milled. Mr. C. H. Cribb and other public analysts have pointed out that relatively large quantities of steatite (up to one or two per cent.) may be incorporated in the rice grains as a result of this treatment. Quantities of adventitious mineral matter of this order have been found in "faced" rice sold in Germany, and were ascertained to be present in certain samples of imported rice tested for the purpose of Dr. Hamill's inquiry by Mr. P. A. E. Richards.

Any more attractive appearance which rice possesses in consequence of polishing by means of steatite is limited to the uncooked article. The consumer thus derives little or no real advantage from the practice and may be prejudiced by reason of the quantity of adventitious mineral matter left in the rice grains. Talc is cheaper than rice and motives of economy exercise no restraining influence on its use by the miller.

The report discussed the action which it is open to local authorities to take under Section 6 of the Sale of Food and Drugs Act, 1875, in

* Food Reports, No. 8. On "facing" and other methods of preparing rice for sale (Dr. J. M. Hamill); Wyman and Sons, Price 2d.

the case of rice reported by public analysts to contain added mineral matter, Dr. Hamill pointed out that if rice so polished is regarded as admissible at all, on the ground that polishing is necessary for the production of the article now commonly known as rice, it should only be tolerated when the amount of mineral matter contributed to the rice by the process is so small as practically to be negligible. His inquiry showed that an outside limit of 0·5 per cent. of added mineral matter would amply meet the requirements of the traders who represented this practice as necessary. Quantities below this limit were found in all the samples which had been polished by millers in this country, and in a large number of samples of imported polished rice.

Since the issue of the report importers, rice millers and other traders concerned have taken steps to minimise the quantity of steatite employed. Local authorities have in many cases issued cautions to the retailers in their districts, and have demanded explanations or instituted proceedings in consequence of reports from public analysts.

It has been stated that the samples of rice recently ascertained to contain as much as 1·3 per cent of steatite are part of old stocks which were milled and polished before attention had been drawn to the subject by the issue of Dr. Hamill's report. The probability of any such stocks now remaining is, however, slight. The question appears to deserve the continued attention of local authorities and it may be hoped that their action will serve to restrain the extension of "facing" to other cereals, such as pearl barley, in which this unnecessary process has not become an established custom.

Contamination of Foods by Metals.

In July 1909 the medical officer of health of Bolton drew attention to analyses made by the public analyst of that borough of seven samples of canned pineapples, in which tin was present in amounts ranging from 0·2 to 1·2 per 1,000 parts of the material. Six samples contained more than 2 grains of tin per lb., and three more than 6 grains per lb. The presence of between 2 and 3 grains of tin per lb. of fruit was also ascertained by Dr. Schryver in the case of similar samples which were sent to the Board. The fact that pineapples, which are among the more acid fruits, are particularly liable to take up tin when canned, deserves greater attention than it sometimes receives from manufacturers.* This liability is greatly increased when tin plate of poor quality is used, and soldering has been carelessly done. Dr. Coutts, on inquiring into the matter, obtained at Liverpool some specimens of canned pineapple imported from the Straits Settlements, which were of similar origin to those examined by the Bolton analyst. The canning in these was unsatisfactory. In several instances the inside of the joints was badly soldered, so that a wide band of solder stretched from the top to the bottom of the tin. Cans were also found in which pieces of solder about $\frac{3}{4}$ inch long projected from the seam along the inside of the can. The tops and the bottoms of the cans were put on so as to leave the raw edge of the steel plate

* Cf. Reports to the Local Government Board by Dr. G. S. Buchanan and Dr. S. B. Schryver on the presence of tin in certain canned foods, 1908. (Food Reports, No. 7.)

exposed to the fruit juices. In such tins when used for acid food materials considerable and possibly dangerous contamination is liable to occur even within a short period of canning. They contrast very unfavourably with other cans in which all exposure of solder in the interior of the can is avoided, and the inside is lacquered. It is to be hoped that the attention given to this subject by local authorities, and the examination of specimens of canned fruit which can now be made at the port of entry, will lead to improved methods being adopted. Similar considerations apply to other acid fruits, notably tomatoes. Two samples of canned tomatoes examined at Bolton showed 3·9 and 3·6 grains of tin per lb. respectively, and in a recent report by Mr. Otto Hehner to the County Council of West Sussex quantities of tin varying between 2·7 and 6·8 grains per lb. (0·36 to 0·97 parts per 1,000) were recorded.

Fruits of this kind are often packed in glass, but it cannot always be assumed that this has been the original packing. The investigation of a series of bottled fruits for the detection of metallic impurity might be undertaken with advantage in districts where bottled fruit is largely sold.

Preservatives.

Cream.—The practice of preserving cream by the addition of boric acid or other boron compounds has existed in this country for many years. The Departmental Committee on Preservatives and Colouring Matters in Food, 1901, reported that they were of opinion that, under present conditions, it would be difficult to maintain or increase the present supply of cream without the use of some preserving agent, but, in view of the use of cream for invalids and children, they considered that the obligation should be laid on the vendor of cream of notifying the presence, nature and quantity of the preservative. The Committee further recommended “that the only preservative which it shall be lawful to use in cream be boric acid or mixtures of boric acid and borax, and in amount not exceeding 0·25 per cent., expressed as boric acid.” Although the importance of notification to the purchaser is generally admitted, it is found that at the present day the presence of preservatives in cream is sometimes not declared at all, while in other cases declarations, when made, are insufficient and may even be misleading. As regards the proportion of boron preservatives, cream traders have claimed that the limit of 0·25 per cent. of boric acid suggested by the Committee is insufficient for the continuance of the trade in the form to which the public has become accustomed, and have acted on this contention. Under the Sale of Food and Drugs Acts, the control exercised by local authorities, with the object of securing the declaration of preservatives, or restriction of the quantities employed, has been confined to a comparatively small number of districts and frequently attended by inconclusive results. In the circumstances, the Board considered it desirable that an inquiry should be made into the present practice of cream traders in regard to the use of preservatives, and into other aspects of the subject, in order to obtain material for considering the advisability of controlling the addition of preservatives to cream by means of regulations under the Public Health (Regulations as to Food) Act, 1907. Dr. Hamill made a detailed study of the subject, and his report was separately issued during the year.*

* Food Reports, No. 10. On the use of preservatives in cream. (Dr. J. M. Hamill) Wyman & Sons. Price 3d.

The question of the issue of regulations is now under the Board's consideration.

Meat Foods.—In his report to the Board in 1908 Dr. McFadden discussed the circumstances in which preservatives are sometimes employed in canned or glass-packed meats of home and foreign origin. During the present year he has continued these inquiries in regard to the use of preservatives in other meat foods, such as brawns, sausages and potted meats, which are not prepared for sale in hermetically sealed receptacles. My report, with Dr. Schryver, upon the application of formaldehyde to meat (p. 203) included an investigation of the preservation of foods in "formalin safes." Fumigation of meat in these safes—and particularly small portions of meat which expose a relatively large surface to the vapour—was found to be open to serious objection in consequence of the quantity of formaldehyde which may be introduced into food so treated.

Whiskey and other Potable Spirits.

During the earlier part of the year under review I continued to serve as a member of the Royal Commission on Whiskey and other Potable Spirits, which presented its final report in July, 1909. A memorandum which I prepared for the Commission on certain questions relating to the Sale of Food and Drugs Acts, foreign and colonial food laws, and the prescription of official definitions of foods, appears in the second volume of the Minutes of Evidence (Cd. 4797, pp. 262-273).

Much evidence was received by the Royal Commission as to differences in composition and quality of whiskies, which result from their origin, method of preparation, ageing, and the like.

The Commission concluded that the term "whiskey" may properly be applied to describe any potable spirit obtained by distillation from a mash of cereal grains saccharified by the diastase of malt. They were unable to support the view, which had been adopted by the Islington Borough Council in prosecutions under the Sale of Food and Drugs Acts, that the use of the term "whiskey" should be restricted to spirits produced by distillation in pot stills. The terms "Scotch" and "Irish," in the view of the Commission, could not be denied to any whiskey which had been distilled in Scotland and Ireland respectively.

In regard to the trade descriptions which are applied to different classes of whiskey, the Commission reviewed the evidence received as to the recognised custom of the trade, which they considered should be accepted as a guide to the descriptions which may legitimately be given. Their report stated that it was clear from the statements of several witnesses that in the matter of labels on whiskey supplied to the consumer in bottles a considerable amount of misdescription existed. In most circumstances, however, it would be a matter of great if not insuperable difficulty for local authorities to control such misdescriptions by the application of the Sale of Food and Drugs Acts. Certain of these difficulties, as the Commission pointed out, might be removed by a more extended application of the Merchandise Marks Acts to trade descriptions of spirits.

In regard to the definition of brandy, the Royal Commission came to the conclusion that the term "brandy" is applicable to a potable spirit manufactured from fermented grape juice and from no other

materials. This conclusion accords with the view on which several authorities under the Sale of Food and Drugs Acts have acted for some years, when dealing with the spurious brandies which are not unfrequently sold as brandy. Application of these Acts in the case of brandy, however, has in the past been based in large measure upon the adoption of the so-called "ether standard," as representing the smallest amount of ethers (esters) which should be present in a genuine brandy of normal character. This "ether standard" is a purely arbitrary limit, the chief justification for which has been the conditions imposed upon the public analyst under the Acts, and the Commission laid stress upon the fallacies which may be entailed by its use. While a presumption that a brandy is not genuine may be established by the discovery of a low content of "ethers," the converse proposition that a high "ether" content is an index of genuineness in brandy cannot be maintained. The Commission consider that the belief was well founded that spirits are being sold to the public as genuine brandy the proportion of "ethers" in which has been artificially adjusted by the aid of essences prepared for the purpose.

IV.—FOREIGN AND COLONIAL FOOD LEGISLATION.

In my report for 1906-8* I referred to several important new laws recently made in foreign countries and in British possessions with the object of securing greater wholesomeness of foods or checking their adulteration and misdescription. The Netherlands Butter Act, 1908, the New South Wales Pure Food Act, 1908, the South Australia Food and Drugs Act, 1908, and the German Wine Law, 1909, may now be added to the list given in that report.

In connection with recent legislation steps are being taken in several countries to codify the official requirements as to the purity of food, and to specify, by means of ordinances or regulations, the obligations which rest upon manufacturers, importers and retailers in respect of particular articles.

In France under the law of 1905 administrative regulations have now been issued in regard to wine, fats, oils, syrups, liqueurs, vinegar, beer, cider, and a few other articles. These regulations specify the significance to be attached to particular trade descriptions of foods, in relation to their origin, conditions of preparation, and the like, and deal with the conditions under which similar articles which are substitutes or mixtures may legitimately be sold or exposed for sale. In England the regulations which have principally received attention are those by which the Champagne and Cognac regions have been delimited and the terms champagne and cognac, as descriptions, have been restricted in France to the produce of those regions. The whole series of regulations, however, together with the administrative circulars issued under the direction of the French Service de la Répression des Fraudes deserves attention from those interested in food legislation.†

Under the Swiss Federal Law relating to commerce in food-stuffs which became operative on 1st July, 1909, administrative ordinances

* Annual Report of the Medical Officer for 1907-8, Appendix A., No. 10, p. 140.

† Cf., *Annales des Falsifications*, Paris, 1908-9.

have been made to provide for expert inspection and analysis of foods both imported and of local origin. The object of certain of these ordinances appears to be the establishment of an elaborate surveillance over the slaughtering of animals and the preparation of meat foods, while a special ordinance, of 29th January, 1909, furnishes a code of official requirements in connection with the preparation, description and sale of the majority of foods in common use.

In the United States the Department of Agriculture has continued to issue "Food Inspection Decisions" relating to the wholesomeness or proper description of different articles of food under the United States Food and Drugs Act of 1906. The same Department also frequently issues "Notices of Judgments" which have been obtained in cases where infractions of the Food and Drugs Act have been dealt with by prosecutions conducted under the authority of the Federal Government. The latter afford useful indications of the methods of treatment and the nature of the trade description of foods which are subject to control under the law in question.

Under the New South Wales Pure Food Act, 1908, a series of regulations has been made by the Board of Health on the recommendation of an advisory Committee, which define a large number of foods and deal with the sale of substitutes or imitations of genuine products. It is understood that regulations of a similar character have been made in South Australia, and that the question of unifying the pure food requirements of the different States in the Commonwealth is now under consideration.

As pointed out in my 1906-8 Report, these developments of legislation and administrative control over the purity of food in foreign countries and British possessions have in some instances an important bearing upon the nature of the imported foods which furnish so large a part of our total food supply, and upon the trade description given to such foods. The "pure food" legislation of other countries may in addition affect British exporters, and the Board were consulted during the year by the Foreign Office and the Board of Trade in certain instances in which British firms complained of the rejection of their goods in consequence of failure to comply with the requirements of the countries to which they were exported. Inquiries have been made of the manufacturers in these cases and analyses have been carried out where necessary.

The system of certifying meat foods exported from this country to the United States and to Argentina, referred to in previous reports, has been kept under supervision. Inspectors during the year have visited firms for which a system of certification had been established, and have conferred with the certifying officers as to the sufficiency of the arrangements made under the Board's memoranda authorising the issue of these certificates.

ADDENDUM A.—Circulars, 1909.

(1) CIRCULAR LETTER (No. 4) TO PORT SANITARY AUTHORITIES
AND CERTAIN SANITARY AUTHORITIES.REGULATIONS UNDER THE PUBLIC HEALTH (REGULATIONS AS
TO FOOD) ACT, 1907.

LOCAL GOVERNMENT BOARD,
WHITEHALL, S.W.,
29th April, 1909.

SIR,

I AM directed by the Local Government Board to draw attention to the following considerations in connection with the administration of the Public Health (Foreign Meat) Regulations, 1908.

New "Official Certificate" in the case of pork inspected in the Netherlands.

In their circular of 26th January, 1909 (Foreign Meat, No. 3), the Board stated that they had caused to be inserted in the London Gazette of the 22nd January, 1909, a notice containing a schedule of labels and marks declared to be admissible as Official Certificates in the case of pork, or other edible parts of the pig, which have been subjected to inspection in certain countries. In the case of the Netherlands the form of label scheduled was by the notice declared to be admissible as an Official Certificate only until 1st May, 1909.

On consideration of communications received from the Netherlands Government in regard to the system of meat inspection in that country which has been established by the Netherlands Inspection of Meat for Export Law, 1907, and regulations thereunder contained in the Decree of 24th June, 1908, the Board have caused to be issued in the London Gazette of the 20th April, 1909, a notice containing in the schedule a description of a new form of label declared to be admissible after 1st May, 1909, in respect of pork and other edible portions of the pig subjected to inspection in the Netherlands. A copy of this notice is appended to this circular.

The Board desire in this connection to draw attention to the paragraphs of their circular of 26th January under the heading "Significance of Official Certificates in the administration of the Regulations."

Official certification of "mess pork" and certain other pork products imported in brine.

The Board have caused inquiries to be made regarding certain imported pork products described as mess pork, salted pigs' tongues in brine, pigs' spare ribs in brine, and pigs' feet in brine, with a view to determining whether these articles when not accompanied by an Official Certificate should be regarded as coming within the definition of "Foreign Meat of Class I." of the Foreign Meat Regulations, 1908. On the facts reported they have expressed the view that these products may at the present time be regarded as coming within the definition of "Foreign Meat Unclassed." The question of official certification in the case of salted pig products generally will be subject to further consideration in connection with any regulations which may be made in future in respect of foreign meat.

Examination of frozen carcasses of pigs.

In the examination under the Regulations of carcasses of pigs for the detection of disease conditions, it is important that inspection should be made of the lymphatic glands and other parts about the throat. Such inspection is, however, at present frequently impracticable in the case of carcasses arriving in a frozen condition, without first thawing or splitting down the carcase or causing the head to be removed.

The Board understand that with a view to obviating the inconvenience and loss of time which such measures entail, importers of frozen pig carcasses are making arrangements for the parts about the throat to be well exposed by the use of skewers before and after freezing. It is desirable that the medical officer of health should bring this arrangement to the notice of importers in cases where difficulty of examination is experienced. The Board would be glad in due course to be informed of the extent to which in practice it is adopted and is found to meet the difficulty referred to.

Packing of frozen "offal."

Large quantities of frozen livers, kidneys, hearts, tongues, ox-skirts, ox-cheeks, plucks, sweetbreads, &c., known in the trade as frozen "offal," are imported at certain ports. This "offal" is usually packed in boxes or bags, and considerable difficulty has been experienced in its examination in consequence of the organs in question being frozen into a solid mass, moulded to the shape of the receptacle. In certain instances sample boxes or bags have been thawed out and the contents ascertained to be unsatisfactory either on account of evidence of disease or of decomposition in the centre of the mass.

It is important that the medical officer of health at the ports concerned should give attention to the condition of consignments of frozen "offal," and should examine them by thawing out specimen boxes or bags and deciding as to further examination of the consignment from the results so obtained. In this respect, however, consideration should be given to the manner in which the articles have been packed. Marked improvements in packing have taken place since the Regulations took effect. Ox kidneys, hearts, tongues, skirts, and other "offal" are, in many cases, now being separately frozen in the country of origin before being packed, and arrive in such a way that on opening the package the organs retain their natural shape and permit of individual examination. In the case of such consignments, thawing for inspection need only be adopted in suspicious cases or resorted to as an occasional check.

Livers and plucks.—In the case of packages containing frozen livers and plucks it is specially desirable, with a view to the detection of disease conditions, that the ordinary examination made of a consignment should comprise thawing out specimen boxes. Even in these cases, however, the extent to which this proceeding is necessary is diminished where the organs have been separately frozen and packed in the manner referred to.

Small kidneys and sweetbreads.—Small organs, particularly lambs' sweetbreads, pigs' kidneys, and sheep's kidneys, have frequently

been imported in large boxes or bags in which they form a frozen mass which does not admit of inspection without previous thawing. It has been represented to the Board that separate freezing of each organ would in certain cases make it difficult to transport these articles in a marketable condition, and inquiries have been made as to alternative methods of packing which would ordinarily suffice to give the facilities necessary for inspection. The Board are advised that the case can to a large extent be met, in the case of kidneys, by packing so that the frozen contents of the box or bag consist of not more than two layers of kidneys which have not been tightly pressed together; and in the case of sweetbreads, by the use of shallow boxes or other contrivances which secure that the frozen sweetbreads form a comparatively thin layer, *e.g.*, 2 to 2½ inches in depth. The Board understand that some packers, with a view to facilitating inspection under the Regulations, have already adopted this method of packing the small organs in question.

Intimation to importers.—In order to obtain uniformity of practice in this matter at the ports concerned the Board will be glad if the medical officer of health will bring the above considerations to the notice of importers of frozen offal which is not at present satisfactorily packed, in order that any necessary communications may be made to the packing houses abroad at which the offal is prepared for export. It is desirable that special and detailed examination should be made of any imported frozen offal which after such communications is found to be packed in the unsatisfactory manner referred to.

Copies of circular.

An additional copy of this circular is enclosed for transmission to the Medical Officer of Health. The circular will be placed on sale so that copies may shortly be obtained, either directly or through any bookseller, from Messrs. Wyman & Sons, Fetter Lane, London, E.C.

I am, Sir,

Your obedient Servant,

S. B. PROVIS,

Secretary.

The Clerk to the Port Sanitary Authority, *or*
The Town Clerk, *or*
The Clerk to the District Council.

APPENDIX.

NOTICE INSERTED IN THE LONDON GAZETTE OF 20TH APRIL, 1909.

THE PUBLIC HEALTH (FOREIGN MEAT) REGULATIONS, 1908

WE, THE LOCAL GOVERNMENT BOARD, in pursuance of the Public Health (Foreign Meat) Regulations, 1908, HEREBY GIVE NOTICE that, for the purposes of those Regulations, the Official Certificate of which the details are set forth in the representation or design or in the verbal description comprised in the schedule appended to and forming part of this Notice is, subject to such instructions as are comprised in the notes subjoined to the representation or design or verbal description, hereby declared to be admissible, in the case of the Netherlands, during the period beginning on the first day of May, one thousand nine hundred and nine, and ending on the thirtieth day of September in the same year, in the manner, to the extent, and subject to the rules and conditions prescribed in this Notice, as evidence that the pig from which any foreign meat is derived has been certified by a

competent authority in the Netherlands, as the place of origin, to be free from disease at the time of slaughter, and that the meat has been certified by the like authority to have been dressed or prepared, and packed with the needful observance of all requirements for the prevention of danger arising to public health from the meat as an article of food :

AND FURTHER, with respect to the manner, to the extent, and to the rules and conditions in, to, and subject to which every such Official Certificate is admissible as evidence for any such purpose as is hereinbefore described, We hereby prescribe as follows, that is to say :—

- (i) The Official Certificate used in relation to foreign meat, or in relation to a box, case, receptacle or package containing foreign meat shall be admissible as aforesaid only where the meat is derived from a pig.
- (ii) The Official Certificate in the form of a label shall be admissible as aforesaid only where the label is securely affixed or attached to any foreign meat, or to any box, case, receptacle or package containing foreign meat ; and where the label so affixed or attached has not, in any other circumstances, or on any other occasion, been used as an Official Certificate.
- (iii) In this Notice, any word or expression to which a special meaning is assigned by the Public Health (Foreign Meat) Regulations, 1908, has the same meaning as in those Regulations.

SCHEDULE.

NETHERLANDS.

A label according to the subjoined representation or design and verbal description, that is to say :—

[*Copy of label here inserted : see below.*]*

NOTE.—In the use of any label according to this representation or design, the spaces occupied by the figures and word “Oss II.,” and by the letters and figures “a. No. 9217,” will be filled in with substituted figures, words, and letters, denoting the slaughter-house or other building or place at which the meat has been inspected, and other particulars required for administrative information.

Verbal Description.

A slip of cardboard or of other suitable material containing the undermentioned particulars :—

Obverse.

The Royal Arms, the number or name of the slaughter-house, or other building or place at which the meat has been inspected, a serial number, the signature of an authorized officer, and the words :—

NEDERLAND.

Vleesch voor uitvoer goedgekeurd overeenkomstig de Wet op de uitvoerkeuring van vleesch 1907 (Staatsblad no. 217) en het Koninklijk Besluit van 24 Juni 1908, no. 50.

Datum 190 .
De Rijkskeurmeester.
Naam

Reverse.

The words :—“Meat inspected for export according to the Dutch Law of 16 July, 1907, and the Royal Decree of 24 June, 1908, no. 50.”

Also a crossing in the form of two parallel straight lines within which are the words :—

“For export to the United Kingdom of Great Britain and Ireland.”

Given under the Seal of Office of the Local Government Board, this nineteenth day of April, in the year One thousand nine hundred and nine.
(L.S.)

JOHN BURNS,
President,
S. B. PROVIS,
Secretary.

* Not here reproduced.

(2.) CIRCULAR LETTER (NO. 5) TO PORT SANITARY AUTHORITIES
AND CERTAIN SANITARY AUTHORITIES.

REGULATIONS UNDER THE PUBLIC HEALTH (REGULATIONS AS
TO FOOD) ACT, 1907.

LOCAL GOVERNMENT BOARD,
WHITEHALL, S.W.,
26th July, 1909.

SIR,

I AM directed by the Local Government Board to advert to their circular of the 16th September, 1908 on the subject of the Regulations under the Public Health (Regulations as to Food) Act, 1907, and to draw your attention to the section of the circular which sets out the main considerations which should guide administrative action under the Public Health (First Series, Unsound Food) Regulations, 1908.

In that section, attention has been drawn to the powers conferred upon medical officers of health by Articles IV., V., VI., and VIII. of the Regulations to deal with foods which are diseased, unsound, or unfit for human consumption, and to the notices in writing which are necessary in connection with procedure under the above Articles.

With the object of facilitating this procedure, and obtaining uniformity at the ports concerned, the Board have now prepared the specimen forms which are appended hereto.*

Form A.—Notice of detention of unsound food. Agreement made at the time of inspection for the surrender of the food for destruction, &c.

Form A is intended for use in cases where articles of food are recognised to be unsound at the time of inspection, and the importer or his authorised representative (*e.g.*, local agent, shipper or wharfinger) agrees at that time to hand them over for destruction or other treatment approved by the medical officer of health. Hitherto such cases have usually been dealt with by means of "surrender" or "consent" notes, and in some instances merely by verbal agreement. Such agreements are, however, insufficient for the purpose. Considerable inconvenience and misunderstanding have been caused in some cases of this kind through the absence of written evidence of the arrangement made.

By the use of Form A the voluntary "surrender" of unsound food in these circumstances can be effected consistently with Article IV. (5) of the Regulations. The form provides for an interchange of the necessary documents between the inspecting officer and the importer or his authorised representative, and the Board consider it desirable that in future the procedure provided for by this form should be followed in the cases referred to.

* Forms not here reproduced.

Forms B and C.—Notice of detention of unsound food. Communication with the Importer.

Forms B and C are based on forms which have been found satisfactory in practice in the Port of London. They are together intended for use in cases where the unsound food is not surrendered to the medical officer of health for destruction or approved treatment at the time of inspection.

Form B is the notice of detention to be given by the inspecting officer at the time of examination to the person in charge of the articles of food (*e.g.*, dock superintendent, wharfinger, warehouse keeper, master of the ship, or agent of the importer), and specifies the place where they are to be detained.

The notice in Form C gives the importer the alternative of :—

- (1) Disposing of the articles of food in the manner approved by the medical officer of health, and indicated by him on the reply sheet which is attached to Form C, or
- (2) Leaving the matter to take its course before a Justice.

If the importer agrees to accept the arrangement indicated to him by the medical officer of health, he will sign the undertaking set out in the reply sheet and return it forthwith.

If the signed reply sheet is not returned to the medical officer of health, or an equivalent document received by him, within a reasonable time, it will be his duty to have the articles of food examined by a Justice, and to deal with them accordingly.

The reply sheet of Form C should in each instance be filled in by the medical officer of health in such a way as clearly to indicate to the importer the manner of disposal which the medical officer of health is prepared to approve. This may be done by appropriately filling the blank spaces and by striking out the printed words which do not apply. Examples are given in the note appended to the form.

Forms D, E and F.—Notice as to facilities for examination, and detention pending examination of samples. Vouchers.

Form D is intended for use in cases where necessity arises for making application in writing to obtain facilities for the examination of articles of food (Article IV., (1), (2), (3)).

Form E is the notice required by Article VIII. to be sent to the importer in those cases where the medical officer of health desires to detain the consignment pending the result of special examination of samples.

Form F is a form of voucher to be supplied, when requested, in cases where samples have been taken from a consignment under Article VIII. of the Regulations.

I am, Sir,

Your obedient Servant,

S. B. PROVIS,

Secretary.

The Clerk to the Port Sanitary Authority, *or*
The Town Clerk, *or*
The Clerk to the District Council.

(3.) CIRCULAR LETTER (No. 6) TO PORT SANITARY AUTHORITIES
AND CERTAIN SANITARY AUTHORITIES.

REGULATIONS UNDER THE PUBLIC HEALTH (REGULATIONS
AS TO FOOD) ACT, 1907.

LOCAL GOVERNMENT BOARD,
WHITEHALL, S.W.,
30th September, 1909.

SIR,

I AM directed by the Local Government Board to advert to the Public Health (Foreign Meat) Regulations, 1908, which were made by them under the Public Health (Regulations as to Food) Act, 1907, for the purpose of preventing danger to the public health arising from the importation of certain kinds of meat foods, and to the circular letters (Nos. 1 to 4) with respect to the Regulations which they issued on the 16th September and 12th December, 1908, and 26th January and 29th April, 1909.

The experience which has been obtained of the working of the Regulations has shown the necessity for some addition to or amendment of their provisions in the directions indicated below, and the Board have accordingly issued further Regulations modifying in certain particulars the Regulations of 1908. Copies of the new Regulations are enclosed.

The amending Regulations are confined to substituting a new Article for Article I. ("Interpretation") of the Order of 1908, and do not make any alteration in the provisions of Articles II. to XVII. of that Order which prescribe the procedure to be followed with respect to imported meat. The substituted Article follows, verbatim, the terms of Article I. of the Regulations of 1908, except in the cases of paragraphs (h), (i), (j), (k), and (o).

The definitions in Article I. of the new Regulations are to be read into the Regulations of 1908, and into any Order made under Article XVI. of those Regulations.

"OFFICIAL CERTIFICATES."

By notices published in the *London Gazette*, certain Official Certificates have been declared admissible for the purposes referred to in paragraph (b) of Article I. of the Regulations of 1908 during the period ending on the 30th September, 1909.

Under the new Regulations further Official Certificates may be declared admissible for these purposes by a like notice. Moreover, any existing or future Official Certificate will continue to be admissible until by a further notice published in the *London Gazette* it is declared to be so no longer.

"Official Certificates" now Recognised.

Canada, Denmark, Netherlands, New Zealand.—The labels and marks relating to pork which has been subjected to inspection in these countries have been described in the Board's Circulars of January 26th, 1909, and April 29th, 1909.

Belgium.—On consideration of communications received from the Belgian Government in regard to the system which has been organised in that country for the inspection of meat intended for export to the United Kingdom, the Board have caused to be published in the *London Gazette* of Friday, 24th September, 1909, a notice containing in the schedule a description of a label which is declared

to be admissible as an "Official Certificate," in respect of pork and other edible portions of the pig subjected to inspection in Belgium.

Victoria and New South Wales.—On consideration also of communications received from the Governments of the States of Victoria and New South Wales, labels or marks attesting inspection in those States have also been recognised as "Official Certificates" by publication in the notice referred to.

A copy of the notice in the *London Gazette* including the schedule thereto in which the Belgian and Australian labels are described, is appended to this circular.

Significance of Official Certificates in the Administration of the Regulations.

The Board may draw attention to the observations on this subject which were made in their circular of the 26th January last.

DEFINITIONS OF FOREIGN MEAT FOR THE PURPOSE OF THE REGULATIONS.

The amending Regulations make certain alterations in the description of the foreign meats which are comprised in the definitions of "Foreign Meat of Class I." and "Foreign Meat of Class II." in the Foreign Meat Regulations, 1908.

It will be remembered that the Regulations require that where as a result of a notice received from an officer of Customs or otherwise, the Medical Officer of Health has ascertained that any imported meat comes within the definition of "Foreign Meat of Class I." or "Foreign Meat of Class II.," he should give a notice forbidding the removal of the meat for any purpose other than exportation (*see* Article III. (5) and Article V.). If an importer to whom a notice of this kind has been given desires not to export the meat, but to use it for some purpose other than sale for human consumption, the procedure to be adopted to enable him to do so is provided in those Regulations (Articles VI. and VIII.).

Scrap Meat.

The Foreign Meat Regulations, 1908, included boneless scrap meat in the definition of "Foreign Meat of Class I." Scrap meat or trimmings of carcasses which contain bone are, however, occasionally imported. They are usually contained in barrels or bags and described as "neck meat," "rib meat," or by other names. Their importation must be considered open to objections similar to those which attach to the importation of boneless scrap meat.

The amending Regulations include meat which consists of scraps, trimmings, or other pieces, of such shape or in such condition as to afford insufficient means of identification with definite parts of a carcase, in the definition of "Foreign Meat of Class I.," whether or not bone is present in such scraps or pieces. In any case where the medical officer of health ascertains that meat of the kind referred to is being imported, the necessary notice applicable to "Foreign Meat of Class I." should be given.

Bacon, ham, salted mess pork, salted pig's tongues, salted pig's heads, &c.

The Foreign Meat Regulations, 1908, do not require that bacon and ham, or certain salted parts of the carcase of the pig which are prepared in a manner comparable to that in which bacon and ham

are prepared, should necessarily be attested by an "official certificate" in evidence of approved inspection in the country of origin as a condition of their importation for use for human food. In the case of uncertified packages containing pigs' heads and other salted products, however, the meat has on several occasions been found to show evidence of tuberculosis or other disease conditions. In other cases the lymphatic glands which would naturally be present in the portions of the salted carcase have been removed before importation in such a way as to suggest that the object of the removal of the glands has been to conceal the fact that they were affected by disease, or to prevent any attempt to discover the existence of disease on arrival in this country.

In regard to these salted articles, the amending regulations include any severed part of the carcase of the pig which is not contained in a package bearing an "official certificate" in the definition of "Foreign Meat of Class I." if the lymphatic glands about such part are not present in their natural position.

The stomachs or "maws" of pigs are sometimes imported, in brine or packed in salt, for human consumption. The amending regulations include any salted part of the pig which is not a severed part of the carcase in the definition of "Foreign Meat of Class I." if it is not imported in a package which bears an "official certificate."

Foreign bacon, ham, and salted pig products, will be detained by Customs officers on receipt of an intimation from the medical officer of health that he desires to examine salted pig products which arrive from some specified country or port of shipment, or particular consignments of such meat. Requests for detention should contain particulars sufficient for the identification of the meat in question by the Customs officers. It will usually be practicable for the medical officer of health to examine salted pig products for the purpose of the regulations without first requesting formal detention by Customs officers.

"Stripped" meat.

The Board's attention has been called to the fact that meat, particularly beef, is sometimes imported in the form of carcasses, or portions of carcasses, from which the pleura or lining membranes of the thorax have been stripped. Removal of the pleura is frequently practised in order to conceal evidence of disease conditions. The amending regulations include any meat which comprises the ribs, but which on importation is ascertained to be without the pleura in the category of "Foreign Meat of Class I." The addition thus made to the regulations should receive special attention in connection with inspection made of imported beef.

Copies of Circular.

An additional copy of this circular is enclosed for transmission to the medical officer of health. The new regulations and this circular will be placed on sale so that copies may shortly be obtained, either directly or through any bookseller, from Messrs. Wyman & Sons, Ltd., Fetter Lane, London, E.C.

I am, Sir,
Your obedient Servant,
S. B. PROVIS,
Secretary.

The Clerk to the Port Sanitary Authority, or
The Town Clerk, or
The Clerk to the District Council.

APPENDIX.

NOTICE PUBLISHED IN THE "LONDON GAZETTE" OF FRIDAY,

24TH SEPTEMBER, 1909.

THE PUBLIC HEALTH (FOREIGN MEAT) REGULATIONS, 1908.

WE, THE LOCAL GOVERNMENT BOARD, in pursuance of the Public Health (Foreign Meat) Regulations, 1908, hereby give notice that, for the purposes of those regulations, each official certificate of which the details are set forth in any representation or design or in any verbal description comprised in the schedule appended to and forming part of this Notice is, subject to such instructions as are comprised in the notes subjoined to the representation or design or verbal description, hereby declared, in relation to each country of which, as a place of origin, the name is prefixed as a heading to that representation, or design, or verbal description, to be admissible, during the period of twelve months beginning on the First day of October, One thousand nine hundred and eight, in the manner, to the extent, and subject to the rules and conditions prescribed in this Notice, as evidence that the pig from which any foreign meat is derived has been certified by a competent authority in the place of origin to be free from disease at the time of slaughter, and that the meat has been certified by the like authority to have been dressed or prepared, and packed with the needful observance of all requirements for the prevention of danger arising to public health from the meat as an article of food :

AND FURTHER, with respect to the manner, to the extent, and to the rules and conditions in, to, and subject to which every Official Certificate is admissible as evidence for any such purpose as is hereinbefore described, We hereby prescribe as follows, that is to say :—

- (i) An Official Certificate used in relation to foreign meat, or in relation to a box, case, receptacle or package containing foreign meat shall be admissible as aforesaid only where the meat is derived from a pig.
- (ii) An Official Certificate in the form of a label shall be admissible as aforesaid only where the label is securely affixed or attached to any foreign meat, or to any box, case, receptacle or package containing foreign meat; and where the label is so affixed or attached has not, in any other circumstances, or on any other occasion, been used as an Official Certificate.
- (iii) In this Notice, any word or expression to which a special meaning is assigned by the Public Health (Foreign Meat) Regulations, 1908, has the same meaning as in those regulations.

SCHEDULE.

PLACES OF ORIGIN AND OFFICIAL CERTIFICATES.

BELGIUM.

I.—A label according to the subjoined representation or design, and verbal description, that is to say :—

[*Copy of Label here inserted.*]*

Verbal Description.

A slip of cardboard or of other suitable material containing the under-mentioned particulars :—

Obverse.

The Royal Arms, the name of the Commune, the number of the slaughter-house, the signature of an authorised officer, and the words :—

ROYAUME DE BELGIQUE.

Viande pour l'exportation déclarée propre à la consommation conformément à l'Arrêté royal du 23 mars 1901 (1).

Date
L'Expert agréé par le Gouvernement :
Signature,

(1) Le porc n'est pas atteint de tuberculose. L'abatage, la préparation et l'emballage ont été effectués de manière à prévenir toute atteinte à la santé publique.

Reverse.

The words :—" Meat inspected for export according to the Belgian Royal Decree of 23 March 1901."

"Vleesch goed verklaard voor den uitvoer krachtens het Belgisch Koninklijk Besluit van den 23^e Maart 1901."

STATE OF NEW SOUTH WALES.

A mark branded on the meat together with a label :—

1. The mark to be according to the subjoined representation or design and verbal description, that is to say :—

[*Copy of Mark here inserted.**]

Verbal Description.

A device branded on the meat, and comprising within a circle the letters N S W, separated from each other by radial lines.

2. The label to be according to the subjoined representation or design and verbal description, that is to say :—

[*Copy of Label here inserted.**]

NOTE.—In the label represented in the above design the double triangle and letters Q. M. E. S. are the registered trade mark of an exporting firm and indicate the place of slaughter. Other designs with a similar significance may be substituted.

Verbal Description.

A slip of cardboard or of other suitable material containing the undermentioned particulars :—

Obverse.

On the right side of the label the words "Australia. State of New South Wales." Block signature of the Examining Officer under Commerce Act, 1905. On the left side of the label a star enclosing a circle containing the words "Commonwealth of Australia. Approved for Export."

Reverse.

A registered trade mark indicating the exporting company and the place of slaughter, and the word "Pork."

STATE OF VICTORIA.

A label of suitable material and otherwise in accordance with the subjoined verbal description, that is to say :—

A printed form containing the undermentioned particulars :—

State of Victoria, abattoir of origin, name of the Inspecting Officer, and the words "Certified to be from animals free from disease and prepared and packed under Government supervision."

The label to bear a stamp according to the subjoined representation or design and verbal description, that is to say :—

[*Copy of Representation or Design here inserted.**]

Verbal Description.

Within an oval frame, a crown between the letters "D" and "A," together with the words "State of Victoria."

Given under the Seal of Office of the Local Government Board, this Twenty-third day of September, in the year One thousand nine hundred and nine.

(L.S.)

JOHN BURNS, President.

S. B. PROVIS, Secretary.

* Not here reproduced.

ADDENDUM B.—Regulations, 1909.

THE PUBLIC HEALTH (FOREIGN MEAT) AMENDING REGULATIONS, 1909. DATED SEPTEMBER 27, 1909.

To all Port Sanitary Authorities ;—

To all other Sanitary Authorities and Local Authorities as herein defined ;—

To all Officers of Customs and Excise ;—

To all Medical Officers of Health of the Sanitary Authorities and Local Authorities aforesaid ;—

To all Masters of Ships ;—

And to all others whom it may concern.

Whereas, in relation to articles of food, the Public Health (Foreign Meat) Regulations, 1908, provide for the use of an Official Certificate, for the Classification of Foreign Meat, and for the combined action of Authorities for the purposes of those Regulations ;

And whereas it is expedient that, with respect to the aforesaid matters and to other purposes, the Public Health (Foreign Meat) Regulations, 1908, be altered, and that, accordingly, such Regulations as are hereinafter set forth be made ;

And whereas the Commissioners of Customs and Excise have signified their consent to the said Regulations, so far as they apply to the Officers of Customs and Excise :

Now, therefore, We, the Local Government Board, by this Our Order, and in the exercise of the powers conferred upon Us by the Public Health Act, 1875, the Public Health (London) Act, 1891, the Public Health Act 1896, and the Public Health (Regulations as to Food) Act, 1907, and of every other power enabling Us in that behalf, do make the following Regulations, that is to say :—

Revocation of Article I. of former Regulations and substitution of altered Regulations.

Article I.—Article I. of the Public Health (Foreign Meat) Regulations, 1908, shall be revoked : and those Regulations shall be altered so that they shall have effect, with the substitution for the Article so revoked of the following Article, namely :—

“ Interpretation.”

“ Article I.—In these Regulations, unless the contrary intention appears—

“ (a) Words importing the masculine gender include females ;

“ (b) Words in the singular include the plural, and words in the plural include the singular ;

“ (c) Expressions referring to writing include references to printing and other modes of representing or reproducing words in a visible form ;

“ (d) The expression ‘ cattle ’ includes a bull, cow, ox, heifer, calf, ram, ewe, wether, goat, and kid ;

“ (e) The expression ‘ pig ’ includes a boar, sow, and hog ;

“ (f) The expression ‘ meat ’ means pork, the flesh of cattle, any other edible part of a pig or of cattle, or a substance, compound, material, or article of which pork, or the flesh of cattle, or any other edible part of a pig or of cattle is an ingredient ;

“ prepared in the manner in which bacon or ham is ordinarily
 “ prepared, and which are not contained in a box, case,
 “ receptacle, or package with an Official Certificate impressed
 “ thereon, or affixed or attached thereto ;

“ or

“ (D) Of severed parts of the carcase of a pig, or of other edible
 “ parts of a pig, which have, before importation, been salted,
 “ cured, pickled, dried, or smoked, or otherwise prepared in
 “ the manner in which bacon or ham is ordinarily prepared,
 “ and which are not contained in a box, case, receptacle, or
 “ package with an Official Certificate impressed thereon,
 “ or affixed or attached thereto, and which, in the case of
 “ the severed parts of the carcase, are without the lymphatic
 “ glands about those parts in their natural position ;

“ or

“ (E) Of meat which, whether derived from cattle or a pig, is
 “ in the form of a carcase, or of a part of a carcase, and, in
 “ either case, comprises the ribs, and is without any such
 “ membrane as, in its natural position, forms the lining of
 “ the cavity enclosed by the ribs ;

“ (J) The expression ‘Foreign Meat of Class II.’ means foreign
 “ meat which, being in the form of the entire carcase of a pig,
 “ is without the head in its natural state of attachment to the
 “ carcase, or is without the lymphatic glands about the throat, or
 “ about any other part of the carcase, in their natural position ;

“ (K) The expression ‘Foreign Meat of Class III.’ means foreign
 “ meat which is in the form of severed parts of the carcase of a
 “ pig or of other edible parts of a pig, which is not and does not
 “ comprise any foreign meat of Class I., or any foreign meat of
 “ Class II., and which is contained in a box, case, receptacle, or
 “ package with an Official Certificate impressed thereon, or affixed
 “ or attached thereto ;

“ (L) The expression ‘Foreign Meat Unclassed’ means foreign meat
 “ other than foreign meat of Class I., foreign meat of Class II.,
 “ or foreign meat of Class III. ;

“ (M) The expression ‘importer’ means any person in the United
 “ Kingdom who, either as owner or consignee, agent or broker,
 “ is entitled to the possession, custody, or control of any foreign
 “ meat ;

“ (N) The expression ‘ship’ includes a vessel or boat ;

“ (O) The expression ‘Officer of Customs and Excise’ includes any
 “ person acting under the authority of the Commissioners of
 “ Customs and Excise ;

“ (P) The expression ‘Master’ used in relation to a ship includes
 “ the officer, or other person for the time being in charge or
 “ command of the ship ;

“ (Q) The expression ‘Sanitary Authority’ means every Port
 “ Sanitary Authority, and every Council of a Municipal Borough
 “ or other Urban District, and every Rural District Council
 “ whose borough or district includes or abuts on any part of a
 “ Customs port which part is not within the jurisdiction of
 “ a Port Sanitary Authority ;

“ (R) The expression ‘the District’ means the District of a Sanitary
 “ Authority ;

“ (S) The expression ‘Medical Officer of Health’ includes any duly
 “ qualified Medical Practitioner appointed or employed by a
 “ Sanitary Authority to act in the execution of these Regula-

- tions; and any other person appointed or employed by the
 “ Sanitary Authority under these Regulations to exercise any
 “ powers, or to discharge any duties assigned to the Medical
 “ Officer of Health ;
 “ (t) The expression ‘ Local Authority ’ means every Council of a
 “ Municipal Borough or other Urban District and every Rural
 “ District Council, not being a Sanitary Authority within the
 “ meaning of these Regulations, and includes the Common
 “ Council of the City of London and every Council of a Metro-
 “ politan Borough ;
 “ (u.) The expression ‘ area ’ used in relation to a Local Authority
 “ means the area subject to the jurisdiction of the Local Authority
 “ for the purposes of the Public Health Act, 1875, or of the
 “ Public Health (London) Act, 1891, as the case may be.”

Commencement and Extent of Operation of Amending Regulations.

ARTICLE II.—These Regulations shall come into operation on the Thirtieth day of September, One thousand nine hundred and nine, and then and thereafter the Public Health (Foreign Meat) Regulations, 1908, and any Order theretofore made in pursuance of Article XVI. of those Regulations shall apply and have effect and shall be enforced and executed in such form and in such manner as will give full effect to the alterations made by these Regulations, and as if, throughout the Public Health (Foreign Meat) Regulations, 1908, references to an Officer of Customs and Excise were substituted for references to an Officer of Customs, and as if, throughout any such Order, references to the Public Health (Foreign Meat) Regulations, 1908, as altered by these Regulations, were substituted for references to the Public Health (Foreign Meat) Regulations, 1908, and references to an Officer of Customs and Excise were substituted for references to an Officer of Customs.

Short Title.

ARTICLE III.—These Regulations may be cited as “ The Public Health (Foreign Meat) Amending Regulations, 1909.”

Given under the Seal of Office of the Local Government Board,
 this Twenty-seventh day of September, in the year One
 thousand nine hundred and nine.

(L.S.)

JOHN BURNS,
 President.

S. B. PROVIS,
 Secretary.

Notice.—The Public Health Act, 1896, provides by Sub-section 3 of Section 1 that if any person wilfully neglects or refuses to obey or carry out, or obstructs the execution of any regulation made under any of the enactments mentioned in that Act he shall be liable to a penalty not exceeding One Hundred Pounds, and in the case of a continuing offence to a further penalty not exceeding Fifty Pounds for every day during which the offence continues.

The power of making regulations under the Public Health Act, 1896, and the enactments mentioned in that Act is enlarged by the Public Health (Regulations as to Food) Act, 1907.

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